

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 27

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U.S. PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS
AND INTERFERENCES

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JERRIEL L. COFFMAN and BRAD R. RULLMAN

Appeal No. 2003-1414
Application No. 09/215,788¹

ON BRIEF

Before THOMAS, SAADAT, and NAPPI, Administrative Patent Judges.
SAADAT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1-21 and 23-28, which are all of the claims pending in this application. Claim 22 has been canceled.

We reverse.

BACKGROUND

Appellants' invention is directed to a direct-call interface between local and remote transports in a device driver wherein a large amount of data can be efficiently delivered without using

¹ Application for patent filed December 21, 1998.

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excessive processing overhead and time. Representative independent claim 1 is reproduced below:

1. An input/output platform (IOP) access module for providing input/output device access between a host system and another system, via a data network, said IOP access module comprising:

a Local Transport arranged to provide an interface to an input/output platform (IOP) supporting an array of input/output devices;

a Remote Transport arranged to provide an interface to said another system, via said data network; and

a Connection Manager arranged to establish connection services and to create a direct call path between the Local Transport and the Remote Transport so as to provide access to input/output devices.

The Examiner relies on the following references in rejecting the claims:

Heil et al. (Heil) 6,173,374 Jan. 9, 2001
(filed Feb. 11, 1998)

Bonola 6,321,279 Nov. 20, 2001
(filed Sep. 14, 1998)

“Intelligent I/O (I_2O), Architecture Specification” (Specs),
 I_2O Special Interest Group (I_2O SIG), version 1.5, March 1997.

Claims 1-18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Heil and Specs.

Claims 19-21 and 23-28 stand rejected under 35 U.S.C.

§ 103(a) as being unpatentable over Heil and Specs and further in view of Bonola.

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We make reference to the answer (Paper No. 21, mailed February 12, 2003) for the Examiner's reasoning, and to the appeal brief (Paper No. 20, filed December 6, 2002) and the reply brief (Paper No. 22, filed April 12, 2003) for Appellants' arguments thereagainst.

OPINION

With respect to the rejection of claims 1-18, the Examiner relies on Heil for generally disclosing an input/output platform (IOP) and reads the claimed "Local Transport" and "Remote Transport" on software drivers 240, 250, 270 and 280 of Heil (answer, page 3). The Examiner further characterizes "I/O Shipping" 280 of Heil as the recited "Connection Manager" while recognizing the absence of a direct call path between the Local Transport and the Remote Transport (id.). To provide what is missing in Heil, the Examiner relies on the disclosure of Specs for establishing connection services and creating a direct call path and cites independence from operating/vendor specifications as the reason for combining the two references (id.).

Appellants argue that the portions of Heil, which are characterized by the Examiner as the claimed "Local Transport," "Remote Transport" and "Connection Manager," are misplaced

(brief, page 22).² Appellants further state that a host bus adapter (HBA) is a hardware component for connecting a host system to an I/O device and not for interfacing with other nodes of the system network (brief, page 27). Appellants argue that the host bus adapter of Heil is a hardware peripheral which, no matter how modified, cannot suggest the claimed software driver (reply brief, page 9). Appellants further assert that the Examiner does not identify any teaching in Specs that would have suggested combining Heil and Specs to one of ordinary skill in the art (reply brief, page 11).

In response to Appellants' arguments, the Examiner repeats that driver 280 , depicted in Figure 2 of Heil, is the Connection Manager that establishes connection services between the Local Transport (shown as driver 250) and the Remote Transport (shown as driver 270) (answer, page 13). The Examiner further argues that "explicit suggestion in the primary reference [Heil] motivates one [sic] ordinary skill in the art to modify the teachings using the teachings of the secondary reference [Specs]" (answer, page 14).

² Appellants' arguments in the brief relate to Heil and a reference (Angelo) which is different from Specs. These arguments are modified in the reply brief where Heil and Specs are correctly referred to. We will, therefore, limit our consideration of the brief only to the extent that it relates to Heil.

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As a general proposition, in rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993) and In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). A prima facie case of obviousness is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art. See In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993); In re Fritch, 972 F.2d 1260, 1266 n.14, 23 USPQ2d 1780, 1783-84 n.14 (Fed. Cir. 1992); Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir. 1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985). In considering the question of the obviousness of the claimed invention in view of the prior art relied upon, the Examiner is expected to make the factual determination set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. See also In re Rouffet, 149 F.3d 1350, 1355, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998).

Based on the positions argued above, the determinative inquiry in this case is whether the element identified by the Examiner as the Connection Manager does indeed "create a direct call path between a Local Transport and a Remote Transport" based on the combination of Heil and Specs. After a review of Heil and Specs and consideration of the arguments set forth by Appellants and the Examiner, we agree with Appellants that the claimed subject matter is not taught or suggested by the combination of the prior art. Heil shows a host system in Figure 1 which is connected to HBA 117 via a Host-to-Peripheral Component Interconnect (PCI) bus bridge 115 and a PCI bus 116.5 (col 4, lines 34-40). Heil, in Figure 2, further depicts the software layers within the system of Figure 1 and specifically discloses that the I/O shipping ISM 270 and the I/O shipping HDM 280, which are characterized by the Examiner as the Remote Transport (answer, page 3), manage the I/O requests to a remote data (or receiving of the remotely generated requests for local data) and the shipping functions of the Fibre Channel Chip, respectively (Col. 11, lines 36-44). Therefore, it is not clear how HDM 280 can also be characterized as the claimed Connection Manager if it processes remote I/O requests.

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Specs, on the other hand, is merely a general system overview of an environment for connecting various drivers and lacks any specific teaching or suggestion for creating a direct call path between a Local Transport and a Remote Transport. While the messaging layer of Specs generally connects different drivers, there is no teaching of connecting a Local Transport and a Remote Transport nor any reason why such messaging scheme should be combined with Heil.

Therefore, based on the record before us, we remain unconvinced by the Examiner's assertion (answer, page 3) that the teachings of Specs would have motivated one of ordinary skill in the art to create a direct call path between the Local Transport and the Remote Transport. What a reference teaches is a question of fact. In re Baird, 16 F.3d 380, 382, 29 USPQ2d 1550, 1552 (Fed. Cir. 1994) (citing In re Beattie, 974 F.2d 1309, 1311, 24 USPQ2d 1040, 1041 (Fed. Cir. 1992)). Here, absent any clear reference to exactly what portion of Specs constitutes a direct call path between a Local Transport and a Remote Transport in support of the combination, the Examiner's assertion that the connections between one IOP and another IOP, as taught by Specs, constitutes a direct messaging between the local and the remote interfaces (answer, pages 3 & 14), is mere conjecture.

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Thus, assuming, arguendo, that it would have been obvious to combine Heil and Specs, as held by the Examiner, the combination would still fall short of teaching a Connection Manager for creating a direct call path between a Local Transport and a Remote Transport, as recited in independent claims 1, 7, 14 and 23. Therefore, as the Examiner has failed to set forth a prima facie case of obviousness, we cannot sustain the 35 U.S.C. § 103 rejection of claims 1-18 over Heil and Specs.

With respect to the rejection of claims 19-21 and 23-28, the Examiner further relies on Bonola for the number of CPU's present in the system and the means for determining the number of IOP's (answer, page 7). However, Bonola contains no teaching or suggestion related to the claimed Connection Manager that creates a direct call path between a Local Transport and a Remote Transport and therefore fails to overcome the deficiencies of Heil and Specs as discussed above. Therefore, the 35 U.S.C. § 103 rejection of claims 19-21 and 23-28 over Heil, Specs and Bonola cannot be sustained.

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CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1-21 and 23-28 under 35 U.S.C. § 103 is reversed.

REVERSED

JAMES D. THOMAS)
Administrative Patent Judge)
)
MAHSHID D. SAADAT) BOARD OF PATENT
Administrative Patent Judge) APPEALS
) AND
) INTERFERENCES
)
ROBERT E. NAPPI)
Administrative Patent Judge)

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